

## Lebenslauf

## Dr.med.dent. MSc. B.D.S. Tarek Elshazly

- Sep 2003 - Jul 2005  
General High School Certificate - Science Section  
Egyptian Secondary School, Cairo (Egypt).
- Sep 2005 - Jun 2010  
Bachelor in Zahnmedizin  
Fakultät für Zahnmedizin, Ain-Shams Universität, Kairo (Ägypten).
- Exam Oct 2016  
The Diploma of Membership of the Joint Dental Faculties at the Royal College of Surgeons of England (MJDF RCS Eng) (Part One Exam)  
Dental Faculties at the Royal College of Surgeons, London (United Kingdom).
- Sep 2016 - Mar 2017  
Bachelor in Biomaterial Engineering (Ein Semester)  
Technologie und Bionics Fakultät, Hochschule Rhein-Waal, Kleve (Deutschland)
- Oct 2012 - Jul 2019  
Masterarbeit (Dental Biomaterial), Fakultät für Zahnmedizin, Ain-Shams Universität, Kairo (Ägypten, in Zusammenarbeit mit der Hochschule Rhein-Waal-Kleve - DE)  
Titel der Abschlussarbeit: Degree of Conversion, Monomer Elution, Depth of Cure and Marginal Leakage of a Bulk Fill Composite  
Supervisors:  
Prof. Dr. Dalia I. El-Korashy, Head of Biomaterials Department, Faculty of Dentistry, Ain-Shams University (Egypt).  
Dr. Dalia I. Sherief, Lecturer of Biomaterials, Biomaterials Department, Faculty of Dentistry, Ain-Shams University (Egypt).  
Prof. Dr. Christoph Heß, Professor of Non-metallic Materials, Faculty of Technology and Bionics, Rhein-Waal University of Applied Science (Germany).
- Jul 2017 - März 2021  
Doktorarbeit (Dr.med.dent.), Oralmedizinische Technologie, Bonn Universität, Bonn (Deutschland)  
Titel der Abschlussarbeit: Numerical and Experimental Analysis of Aligners made of a Novel Shape Memory Polymers  
Doktorvater: Prof. Dr.rer.nat. Dipl.-Phys. Christoph Bourauel, Oralmedizinische Technologie, Universitätsklinikum Bonn.
- Jan 2020 - Aktuell  
MD/PhD  
Oral Medical Technology Department, Bonn University, Bonn (Germany)  
Titel der Abschlussarbeit: Biomechanical Analysis of Orthodontic Aligners made of Smart Polymers.  
Doktorvater: Prof. Dr.rer.nat. Dipl.-Phys. Christoph Bourauel, Leiter Oralmedizinische Technologie Abteilung, Universitätsklinikum Bonn.

## ARBEITSERFAHRUNG

Nov 2010 - Oct 2011	Zahnarztpraktikant, Zahnklinik, Fakultät für Zahnmedizin, Ain-Shams Universität, Kairo (Ägypten)
Nov 2011 - Aug 2014	Zahnarzt (Teilzeit-Nachmittags), Whity Dental Clinics- Dr. Nour Eldin Mostafa, Kairo (Ägypten)
Sep 2014 - Sep 2016	Mitbegründer und Zahnarzt (Teilzeit-Nachmittags), Crown Dental Center, Kairo (Ägypten)
Mai 2012 - Sep 2016	Zahnarzt (Vormittags), Medizinisches Zentrum von Sharabia, Gesundheitsministerium, Kairo (Ägypten)
Mar 2016 - Sep 2016	Lehrassistent für Biomaterials (Teilzeit), Egyptian Russian Uni., Kairo (Ägypten)
Oct 2019 - Sep 2020	Wissenschaftlicher Mitarbeiter (Teilzeit), Forschung und Entwicklung, K-line Europe GmpH, Düsseldorf (Deutschland)
Jan 2020 - Dez 2020	Kieferorthopädie-Labor Mitarbeiter (Teilzeit), Dr. C. Paulus KOP Praxis – Köln
Oct 2020 – Jun 2021	Medizinischer Mitarbeiter (Teilzeit), Centogene Firma für seltene Krankheiten: Covid-19 Test Zentrum in Düsseldorf Flughafen und Köln/Bonn Flughafen.
Jul 2017 – Aktuell	Wissenschaftler Mitarbeiter, Doktorand, Oralmedizinische Technologie, Universität Bonn, Bonn (Deutschland)

## WEITERBILDUNG

### Kurse

- Finite Element Methode Kurs (MSC Marc/Mentate) (Bonn Uni., DE)
- Scientific writing (Bonn Uni., DE)
- Basics of Biomechanics (Bonn Uni., DE)
- Dental Implants Kurs (Ain Shams Uni., Ägypten)
- Orthodontic principles Kurs (Dental Care Clinic, Ägypten)
- Sirona, CEREC Kurs (Dental Care Clinic, Ägypten)
- Composite dental restoration workshop (Ain Shams Uni. , Ägypten)
- Rotary Endodontic workshop (Ain Shams Uni. , Ägypten)
- Teeth Bleaching workshop (Dental Care Clinic, Ägypten)
- Minor oral surgery Kurs (Gesundheitsministerium, Ägypten)

### Wissenschaftliche Projekte

- **Characterization of a novel shape memory polymers to be used in orthodontics**, Universitätsklinikum Bonn, BONFOR-Research Funding Program, 2018-2019. (Doctoral-student Funding: 8820 Euro)
- **Biomechanical analysis of forces generated by aligners made of shape memory polymers**, Universitätsklinikum Bonn, MBRU-Research Funding Program, 2020-2022. (Grant of MBRU-AIMahmeed Collaborative Research Award 2019: 75000 Euro)
- **Finite element study of different cantilever designs of dental bridges**, Scientific Research Project, Oral Medical Technology Department, Bonn University, Germany, 2020-2022.

- **Physicochemical and Mechanical Study of Aligners made of Shape Memory Polymers**, as a collaboration of Oral Technology of University Hospital Bonn and Hochschule BONN-RHEIN-SIEG, 2021-2023.
- **Orthodontic Clear Aligners: Understanding the effect of the trimming line on force transmission**, as a Collaboration of Oral Technology of University Hospital Bonn and the Company Straumann, 2021. (Funding: 50000 Euro per year)

## WISSENSCHAFTLICHE BEITRÄGE

- **Applicability of Shape Memory Polymer in Orthodontics**, Tarek M. Elshazly, Ludger Keilig, Christoph Bourauel, Oral Health Dent Manag 2018, Volume 17 [DOI: 10.4172/2247-2452-C9-090](https://doi.org/10.4172/2247-2452-C9-090) (Oral Presentation).
- **Spectroscopic and Chromatographic Study of a Nano-filled Bulk Fill Composite**, Tarek M. Elshazly, Dalia I. El-Korashy, Dalia I. Sherief, Christoph Bourauel, 11th Conference of the German Society for Biomechanics (DGFB 2019), Berlin (Poster).
- **Effect of Matrix Modification on Polymerization Efficiency of a Nano-filled Composite**, Tarek M. Elshazly, Dalia I. El-Korashy, Dalia I. Sherief, Christoph Bourauel, 5th Euro BioMAT 2019 - European Symposium and Exhibition on Biomaterials and Related, Weimar (Oral Presentation).
- **Degree of Conversion and Depth of Cure of A Matrix-modified Nano-filled Composite**, Tarek M. Elshazly, Dalia I. El-Korashy, Dalia I. Sherief, Christoph Bourauel, 25th Congress of the European Society of Biomechanics (ESB 2019), Vienna (Poster).
- **Experimental and Numerical Analysis of Orthodontic Aligners made of a Novel Shape Memory Polymer**, Tarek M. Elshazly, Ludger Keilig, Sherif Kandil, Christoph Bourauel, 16th International Symposium on Computer Methods in Biomechanics and Biomedical Engineering and the 4th Conference on Imaging and Visualization (CMBBE 2019), New York, USA (Oral Presentation).
- **The Material is the Orthodontist**, Tarek M. Elshazly, Ludger Keilig, Sherif Kandil, Christoph Bourauel, ADA FDI World Dental Congress, 2019, San Francisco, USA <https://doi.org/10.1111/idj.12519> (Oral Presentation).
- **The polymerization efficiency of a bulk-fill composite based on matrix-modification technology**, Elshazly TM, Bourauel C, Aboushelib MN, Sherief DI, El-Korashy DI. Restor Dent Endod. 2020 Jan; 45:e32, <https://doi.org/10.5395/rde.2020.45.e32> (Published Article).
- **Evaluation of Two Resin Composites Having Different Matrix Compositions**, Elshazly TM, Bourauel C, Sherief DI, El-Korashy DI. Dent. J. 2020, 8, 76; <https://www.mdpi.com/2304-6767/8/3/76> (Published Article).
- **Primary evaluation of shape recovery of orthodontic aligners fabricated from shape memory polymer**, Tarek M. Elshazly, Yasmine Alkabani, Ludger Keilig, Ahmed Ghoneima, Moosa Abuzayda, Sameh Talaat, Christoph Bourauel. Dent. J. 2021 9, 31; <https://doi.org/10.3390/dj9030031> (Published Article).
- **Thermography as a Non-ionizing Quantitative Tool for Diagnosing Endo-perio Lesions**, M. Atef Aboushady, Wael Talaat, Zaid Hamdoon, Tarek Elshazly, Nivin Ragy, Christoph Bourauel, Sameh Talaat. 2021, PREPRINT (Version 1) available at Research Square <https://doi.org/10.21203/rs.3.rs-329327/v1> (Published Article).